



50 INCREDIBLE FACTS

1. Stennis Space Center is America's **largest rocket engine test facility**.
2. All Stennis facilities are located within a **13,800-acre** "fee" area owned by the federal government.
3. The Stennis Space Center fee area is surrounded by a 125,000-acre **acoustical buffer zone** designated a national asset.
4. At the height of construction of Stennis Space Center test stands and facilities in the 1960s, some **6,100 workers** were onsite, with 30 prime contractor and 250 subcontractor companies.
5. Stennis Space Center rocket engine test facilities are valued at **more than \$2 billion**.
6. **NASA's Rocket Propulsion Test Program Office** located at Stennis Space Center is responsible for managing test facilities across the agency.
7. The **three large major test stands** at Stennis Space Center are the single-position, vertical-firing A-1 and A-2 stands, and the dual-position, vertical-firing B-1/B-2 stand.
8. The versatile three-stand **E Test Complex** at Stennis Space Center includes seven separate cells capable of various test activities.
9. Stennis Space Center features **seven-and-a-half miles** of canal waterways, which include a lock-and-dam system that allows transport of large rocket stages and cryogenic barges from the Gulf of Mexico to onsite locations via the Pearl River.
10. Stennis Space Center test activities use a **trio of cryogenic elements** – liquid nitrogen, liquid oxygen and liquid hydrogen.
11. Stennis Space Center is among the **world's largest consumers** of liquid hydrogen – one of the main fuels used in rocket propulsion testing.
12. **Record of excellence** – No manned space mission has ever failed as a result of the malfunction or failure of an engine tested at Stennis Space Center.
13. As a **federal city**, Stennis Space Center is home to about 40 federal, state, academic and private organizations and several technology-based companies. The companies and agencies share the cost of owning and operating the facility, making it more cost-effective for each entity to accomplish its independent mission.
14. Stennis Space Center is home to the **largest group** of oceanographers in the world.
15. **Five area colleges** operate a center of higher learning at Stennis – Mississippi State University, Pearl River Community College, the University of New Orleans, the University of Southern Mississippi and the University of Mississippi.
16. **October 25, 1961** – NASA publicly announces plans to open a rocket engine test facility in Hancock County in south Mississippi.
17. **May 17, 1963** – Tree-cutting begins for construction of rocket engine test facilities in south Mississippi.
18. **April 23, 1966** – Stennis engineers conduct the first-ever rocket engine test at the facility, a 15-second firing of a Saturn V second-stage prototype (S-II-C).

19. **1966-1970** – First and second Saturn V rocket stages are tested for NASA's Apollo Program at Stennis Space Center, including those that propelled humans to the moon for the first time during the Apollo 11 mission and six other lunar flights.
20. Stennis engineers conducted 43 test firings during the Apollo Program years, accumulating a total of **2,475 man-years** of rocket engine test team expertise.
21. The Stennis Space Center team tested **27 Saturn V rocket stages** to support the Apollo Program, all of which perform on missions without a single failure.
22. **October 30, 1970** – A Saturn V second stage (S-II-15), is successfully tested for its full duration at Stennis Space Center. The hot fire marks the final stage test for NASA's Apollo Program.
23. **March 1, 1971** – NASA assigns space shuttle main engine testing to Stennis Space Center.
24. **June 24, 1975** – Stennis engineers conduct the first full-duration test of a space shuttle main engine.
25. **1975-2009** – Every modification and configuration of space shuttle main engines was tested and proven flightworthy at Stennis Space Center before being used on a mission.
26. All main engines used on **135 space shuttle flights** were tested first at Stennis Space Center.
27. Space shuttle main engines were fired at Stennis Space Center for about eight-and-one-half minutes (**520 seconds**), the amount of time the engines fire during an actual flight.
28. **May 28, 1976** – A flag-raising ceremony marks the official move of the Naval Oceanographic Program to Stennis Space Center.
29. **1978** – Earth Resource Laboratory Applications Software (ELAS) is created at Stennis Space Center. The software is soon used worldwide for processing satellite and airborne sensor imagery data of Earth's surface into readable and usable information.
30. **April 1978** – Stennis conducts the first test of the space shuttle main propulsion test article with three main engines configured as they are on a space shuttle orbiter during flight. All three main engines are fired simultaneously on the B-2 Test Stand in order to prove the space shuttle propulsion system flightworthy.
31. **February 25, 1988** – Stennis conducts the 1,000th test firing of a space shuttle main engine.
32. **May 20, 1988** – President Ronald Reagan signs an executive order naming the south Mississippi test site, formerly known as the Mississippi Test Facility, Mississippi Test Operations and the National Space Technology Laboratories, in honor of U.S. Sen. John C. Stennis of Mississippi.
33. **August 20, 1990** – For the first time ever, space shuttle main engines are tested on all three large test stands at Stennis Space Center in a single day.
34. **December 30, 1991** – NASA Administrator Richard H. Truly designates Stennis as the Center of Excellence for large propulsion system testing.
35. **August 8, 1998** – All four test positions at Stennis are occupied for the first time in the center's history.
36. **January 24, 2004** – The 1 millionth second of space shuttle main engine test and flight operations is recorded during a test firing on the A-2 Test Stand at Stennis Space Center.
37. **April 2008** – The American Institute of Aeronautics and Astronautics names Stennis Space Center a historic aerospace site.
38. **October 22, 2008** – Stennis Space Center conducts a flight certification test on engine No. 2061, the last space shuttle main flight engine scheduled to be built.
39. **July 29, 2009** – Stennis Space Center conducts the last scheduled test of a space shuttle main engine.
40. **Fall 2009** – Stennis Space Center unveils an "all hazards network" system (HazNet) that provides comprehensive information during emergency and disaster situations. Developed through the facility's Innovative Partnerships Program, the system soon is adopted for all NASA centers, as well as by area communities.
41. **February 2010** – Stennis Space Center partners with Orbital Sciences Corporation to test Aerojet AJ26 rocket engines that will power commercial cargo flights to the International Space Station.
42. **Summer 2010** – The Stennis Education Office creates its first teaching curricula, focused on teaching mass vs. weight and Newton's Laws of Motion. The curricula is made available electronically to teachers around the world.
43. **May 2, 2011** – The main administration building at Stennis Space Center is named in memory of late site Director Roy S. Estess.
44. **October 25, 2011** – Stennis leaders and employees plant a time capsule to culminate a year of activities celebrating its 50th anniversary.
45. **April 21, 2014** – NASA and Space Exploration Technologies Corp. (SpaceX) cut the ribbon at the E-2 Test Stand at Stennis Space Center to launch a partnership to test components of the company's methane-fueled Raptor rocket engine.
46. **August 7-8, 2014** – NASA takes a big step forward in preparations to test its new Space Launch System (SLS) core stage with a 20-foot repositioning of the Main Propulsion Thrust Article (MPTA) structure on the B-2 Test Stand at Stennis. The 61-foot-high, 1.2-million-pound MPTA, built for testing Apollo/Saturn rocket stages, was shifted to accommodate the larger SLS core stage.
47. **January 9, 2015** – Stennis Space Center tests an RS-25 rocket engine for 500 seconds on the A-1 Test Stand, providing critical data on the engine controller unit and inlet pressure conditions. The test is the first of an RS-25 engine since the end of space shuttle main engine testing in 2009. RS-25 engines will power the core stage of NASA's new Space Launch System, being developed to take humans deeper into space than ever before.
48. **August 2015** – The last of three levels of structural steel is added to the B-2 Test Stand, extending its framework 100 feet higher and marking another step in renovating the stand for Space Launch System core stage testing.
49. **August 27, 2015** – Stennis Space Center completes the first developmental test series on the RS-25 engines that will help power the core stage of NASA's new Space Launch System.
50. **November 4, 2015** – The first RS-25 flight engine, No. 2059, is placed on the A-1 Test Stand at Stennis Space Center. The engine will be tested in 2016 to certify it for use on NASA's new Space Launch System.